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#### **AMENDMENTS TO THE DRAWINGS**

The attached sheet of drawings includes changes to Fig. 18. This sheet, which includes Fig. 18, replaces the original sheet including Fig. 18. The power supply in Figure 18 is now indicated with referral number 250 instead of referral number 204.

Attachment: Replacement Sheet

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#### **REMARKS**

The present response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application is respectfully requested.

Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

#### **Status of Claims**

Claims 58-95 are pending in the application.

Claims 1-57, 60, 62, 68, 69, 81, 88, 90 and 94 have been objected to.

Claims 58-95 have been rejected.

Claims 58, 59, 62, 63, 65, 68, 73, 77-80, 84 and 87 have been amended.

Claims 61, 67, 69-71, 81-83, 85 and 90-95 have been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications.

#### **Remarks to the Abstract**

In the Office Action, the Examiner objected to the Abstract. The abstract was amended to overcome the Examiner's objection.

#### **Remarks to the Drawings**

Fig. 18 has been amended to match the specification and to correct a typographical error. The entire drawing sheet containing the corrected drawing is enclosed for review by the Examiner.

#### **Remarks to the Specification**

The amendments to the specification are editorial in nature and do not introduce new matter.

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### **Objections to the Drawings**

The drawings have been objected to because allegedly not showing every feature of the invention specified in the claims. Specifically, the Examiner indicates that the compensation unit and its components, the extension unit to the set top box, the enhanced home outlet unit and the home outlet splitter unit must be shown more clearly or the features cancelled from the claims. Applicants respectfully traverse this rejection.

The extension unit to the set top box has been removed from the claims.

The enhanced home outlet unit and its components as claimed are clearly shown in the drawings, at least in Figs. 4, 5, 8 and 9A-9C. The filter recited in claim 58, as amended, is shown, for example, in Fig. 8 (822) and in Fig. 9C (715). The amplifier recited in claim 73 is shown, for example, in Fig. 8 (802) and in Figs. 9A-9C (704 and 720).

The compensation unit and its components recited in claim 58 as amended and the claims dependent thereon are clearly shown in the drawings, at least in Figs. 16-20. Fig. 18 shows, for example, input and output ports (203 and 204), first and second multiplexer filter sections (210 and 220, described in further detail in Fig 19), first and second amplification sections (229 and 231), equalizers (232, 236, 242 and 246, described in further detail in Fig 20), low pass filters (212 and 222), a power supply unit (250), a choke (208) and a line distribution unit (200).

The compensation unit and its components recited in claim 84 and the claims dependent thereon are also clearly shown in the drawings, at least in Figs. 16-20. Fig. 18 shows, for example, a first multiplexer filter sections (210, described in further detail in Fig 19), a downstream equalizer (232), a downstream amplifier (234), a downstream tilt equalizer (236), a second frequency band divider (220), an upstream equalizer (242), an upstream amplifier (244), an upstream tilt equalizer (246), low pass filters (212 and 222), a power supply (250), a choke (208) and a line distribution unit (200).

Accordingly, Applicants respectfully request that the Examiner withdraw the objections to the drawings.

Additionally, Figure 6 is objected to because a down converter is not in the Figure nor described in the disclosure. Applicants respectfully traverse this rejection. According to the

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description in page 16, lines 23-25 of the Applicant's specification, "A RF switch 82 is used for selecting direct standard CATV operations or down conversion from the XBCS bandwidth of about 1000-3000 MHz to about 72 MHz for the Digital Broadcast Video service". Therefore, a down converter is described. Accordingly, Applicants respectfully request that the Examiner withdraw the objection to Figure 6.

### **Claim Objections**

In the Office Action, the Examiner objected to claims 1-57 for not being listed in the claims as cancelled. In the amended listing of claims above, claims 1-57 are listed as cancelled. Accordingly, Applicants request withdrawal of the objection.

In the Office Action, the Examiner objected to claims 60, 88 and 94 because of alleged informalities. Claim 94 has been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications.

Claims 60 and 88 have been amended in order to cure these informalities. Accordingly, Applicants request withdrawal of the objection.

In the Office Action, the Examiner objected to claim 62 because of alleged informalities. Claim 62 has been amended in order to cure these informalities. Accordingly, Applicants request withdrawal of the objection.

In the Office Action, the Examiner objected to claim 68 because of alleged informalities. Claim 68 has been amended in order to cure these informalities. Accordingly, Applicants request withdrawal of the objection.

In the Office Action, the Examiner objected to claim 69 because of alleged informalities. Claim 69 has been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications.

In the Office Action, the Examiner objected to claim 81 because of alleged informalities. Claim 81 has been canceled without prejudice or disclaimer. In making this

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cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications.

In the Office Action, the Examiner objected to claim 90 because of alleged informalities. Claim 90 has been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications.

## **CLAIM REJECTIONS**

### **35 U.S.C. § 112 Rejections**

In the Office Action, the Examiner rejected claim 59 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Claim 59 has been amended to overcome the rejection. Applicants respectfully assert that this amendment render claim 59 proper under 35 U.S.C. § 112 and request that the rejections be withdrawn.

In the Office Action, the Examiner rejected claims 81-83, 87-95 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Claims 81-83 and 90-95 have been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications. Thus, the rejection of claims 81-83 and 90-95 under 35 U.S.C. § 112 is moot.

Claim 87 has been amended to overcome the rejection. Applicants respectfully assert that this amendment render claim 87 proper under 35 U.S.C. § 112 and request that the rejections be withdrawn.

Claims 88 and 89 depend from claim 87 and the amendment made to claim 87 render claims 88 and 89 proper under 35 U.S.C. § 112. Applicants respectfully request that the rejections be withdrawn.

### **35 U.S.C. § 103 Rejections**

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In the Office Action, the Examiner rejected claims 58-61, 66-69, 73, 74, 76 and 80 under 35 U.S.C. § 103(a), as being unpatentable over Williamson (US 5,774,458) in view of Terry et al. (US 5,499,047), Eldering et al. (US 5,881,362) and Rakib et al (2004/0172658).

Applicants respectfully traverse the rejection of claims 58-61, 66-69, 73, 74, 76 and 80 under 35 U.S.C. § 103(a).

Claims 61, 67 and 69 have been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications. Thus, the rejection of claims 61, 67 and 69 under 35 U.S.C. § 103(a) is moot.

Regarding claim 58, Applicants assert that Williamson, Terry et al., Eldering et al. (US 5,881,362) and Rakib et al, alone or in combination, do not teach or suggest at least “each compensation unit comprises a first multiplexer filter section for selecting the extended frequency range in a first direction of said communication network and a second multiplexer filter section for selecting the extended frequency range in a second direction of said communication network and a first amplification section for amplifying the selected extended frequency range in a first direction of said communication network and a second amplification section for amplifying the selected extended frequency range in a second direction of said communication network, said first and said second amplification sections comprising one or more equalizers, which allow control of gain, slope and/or amplitude of the selected extended frequency range in said first or said second direction of said communication network respectively to correct cable attenuation slope over frequency introduced into the selected extended frequency range, low-pass filters to provide signal in said frequency range already in use and AC power to line distribution device, a power supply unit to supply power to said amplifying circuits and choke to extract AC power from said input port to provide power to said power supply”, as recited in independent claim 58, as amended. It would also not be obvious to include these elements in Williamson. Thus, Williamson, Terry et al., Eldering et al. (US 5,881,362) and Rakib et al, alone or in combination, do not teach or suggest the invention of claim 58, as amended. Accordingly, Applicants respectfully assert that amended independent claim 58 is allowable.

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Claims 59, 60, 66, 68, 73, 74, 76 and 80 depend from, directly or indirectly, claim 58, and therefore include all the limitations of this claim. Therefore, at least for this reason Applicants respectfully assert that claims 59, 60, 66, 68, 73, 74, 76 and 80 are likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to amended independent claim 58 and to claims 59, 60, 66, 68, 73, 74, 76 and 80 dependent thereon.

In the Office Action, the Examiner rejected claims 62, 63 and 78 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Terry et al., Eldering et al. and Rakib et al and further in view of Preschutti (US 4,970, 772).

Applicants respectfully traverse the rejection of claims 62, 63 and 78 under 35 U.S.C. § 103(a).

At least for the reasons indicated above regarding claim 58, amended independent claim 58 is allowable under 35 U.S.C. § 103(a). Claims 62, 63 and 78 depend from, directly or indirectly, claim 58, and therefore include all the limitations of this claim. Therefore, at least for this reason, Applicants respectfully assert that claims 62, 63 and 78 are likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to claims 62, 63 and 78.

In the Office Action, the Examiner rejected claims 64, 65 and 77 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Terry et al., Eldering et al., Rakib et al and preschutti and further in view of Ahmed et al. (US 2005/0114903).

Applicants respectfully traverse the rejection of claims 64, 65 and 77 under 35 U.S.C. § 103(a).

At least for the reasons indicated above regarding claim 58, amended independent claim 58 is allowable under 35 U.S.C. § 103(a). Claims 64, 65 and 77 depend from, directly or indirectly, claim 58, and therefore include all the limitations of this claim. Therefore, at least for this reason, Applicants respectfully assert that claims 64, 65 and 77 are likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to claims 64, 65 and 77.

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In the Office Action, the Examiner rejected claims 70 and 72 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Terry et al., Eldering et al. and Rakib et al and further in view of Dan et al. (US 6,785,907).

Applicants respectfully traverse the rejection of claims 70 and 72 under 35 U.S.C. § 103(a).

Claim 70 has been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in this claim to file divisional and/or continuation patent application. Thus, the rejection of claim 70 under 35 U.S.C. § 103(a) is moot.

At least for the reasons indicated above regarding claim 58, amended independent claim 58 is allowable under 35 U.S.C. § 103(a). Claim 72 depends from claim 58, and therefore includes all the limitations of this claim. Therefore, at least for this reason, Applicants respectfully assert that claim 72 is likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection to claim 72.

In the Office Action, the Examiner rejected claim 71 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Terry et al., Eldering et al., Rakib et al and Dan et al. and further in view of Jung (US 2003/0066088).

Claim 71 has been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in this claim to file divisional and/or continuation patent application. Thus, the rejection of claim 71 under 35 U.S.C. § 103(a) is moot.

In the Office Action, the Examiner rejected claims 75 and 79 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Terry et al., Eldering et al. and Rakib et al and further in view of Ahmed et al.

Applicants respectfully traverse the rejection of claims 75 and 79 under 35 U.S.C. § 103(a).

At least for the reasons indicated above regarding claim 58, amended independent claim 58 is allowable under 35 U.S.C. § 103(a). Claims 75 and 79 depend from, directly or indirectly, claim 58, and therefore include all the limitations of this claim. Therefore, at least



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for this reason, Applicants respectfully assert that claims 75 and 79 are likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to claims 75 and 79.

In the Office Action, the Examiner rejected claim 81 under 35 U.S.C. § 103(a), as being unpatentable over Rakib et al in view of Caporizzo et al. (6,014,547).

Claim 81 has been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications. Thus, the rejection of claim 81 under 35 U.S.C. § 103(a) is moot.

In the Office Action, the Examiner rejected claim 82 under 35 U.S.C. § 103(a), as being unpatentable over Rakib et al in view of Caporizzo et al. and further in view of Ahmed et al.

Claim 82 has been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications. Thus, the rejection of claim 82 under 35 U.S.C. § 103(a) is moot.

In the Office Action, the Examiner rejected claim 83 under 35 U.S.C. § 103(a), as being unpatentable over Rakib et al in view of Caporizzo et al. and further in view of Terry et al.

Claim 83 has been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications. Thus, the rejection of claim 83 under 35 U.S.C. § 103(a) is moot.

In the Office Action, the Examiner rejected claim 84 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Dan et al.

Applicants respectfully traverse the rejection of claim 84 under 35 U.S.C. § 103(a).

Applicants assert that Williamson and Dan et al, alone or in combination, do not teach or suggest at least "a first multiplexer filter section for separating at least two downstream signal streams received from said input for selective processing; a downstream equalizer, a

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downstream amplifier and a downstream tilt equalizer to control gain, slope and/or amplitude of a first signal stream of said at least two downstream signal streams representative of information units transmitted by a transmission center to users; a second multiplexer filter section for separating at least two upstream signal streams received from said output for selective processing; an upstream equalizer, an upstream amplifier and an upstream tilt equalizer to control gain, slope and/or amplitude of a first signal stream of said at least two upstream signal streams representative of information sent by users to a transmission center; low-pass filters to provide signal in a second of said at least two downstream signal streams and AC power to line distribution device; a power supply unit to supply power to said amplifiers; and choke to extract AC power from said input to provide power to said power supply", as recited in independent claim 84, as amended. It would also not be obvious to include these elements in Williamson. Thus, Williamson and Dan et al, alone or in combination, do not teach or suggest the invention of claim 84, as amended. Accordingly, Applicants respectfully assert that amended independent claim 84 is allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to amended independent claim 84.

In the Office Action, the Examiner rejected claim 85 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Dan et al and further in view of Jung.

Claim 85 has been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications. Thus, the rejection of claim 85 under 35 U.S.C. § 103(a) is moot.

In the Office Action, the Examiner rejected claim 86 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Dan et al and Jung and further in view of Rabik et al.

Applicants respectfully traverse the rejection of claim 86 under 35 U.S.C. § 103(a).

At least for the reasons indicated above regarding claim 84, amended independent claim 84 is allowable under 35 U.S.C. § 103(a). Claim 86 depends from, directly or indirectly, claim 84, and therefore includes all the limitations of this claim. Therefore, at least for this reason, Applicants respectfully assert that claim 86 is likewise allowable.

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Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to claim 86.

In the Office Action, the Examiner rejected claims 87 and 88 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Terry et al.

Applicants respectfully traverse the rejection of claims 87 and 88 under 35 U.S.C. § 103(a).

Regarding claim 87, Applicants assert that Williamson and Terry et al, alone or in combination, do not teach or suggest at least “separately amplifying the broadband signal to and from said plurality of users for compensating for line drop losses due to network infrastructure topography; separately adding gain and slope to the broadband signal to and from said plurality of users for compensating for signal loss; separately filtering the broadband signal to and from said plurality of users for dividing the broadband signal according to predefined frequency regions and direction of the broadband signal; tuning the divided signal for controlling the said division of the divided signal into predefined frequency regions; providing a signal in a frequency range already in use to a distribution unit via low-pass filters; and extracting by a choke AC power to a power supply for supplying power to amplifying circuits”, as recited in independent claim 87, as amended. It would also not be obvious to include these elements in Williamson. Thus, Williamson and Terry et al, alone or in combination, do not teach or suggest the invention of claim 87, as amended. Accordingly, Applicants respectfully assert that amended independent claim 87 is allowable.

Claim 88 depends from claim 87, and therefore includes all the limitations of this claim. Therefore, at least for this reason, Applicants respectfully assert that claim 88 is likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to amended independent claim 87 and claim 88 dependent thereon.

In the Office Action, the Examiner rejected claim 89 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Terry et al. and further in view of Rakib et al.

Applicants respectfully traverse the rejection of claim 89 under 35 U.S.C. § 103(a).

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At least for the reasons indicated above regarding claim 87, amended independent claim 87 is allowable under 35 U.S.C. § 103(a). Claim 89 depends from claim 87, and therefore includes all the limitations of this claim. Therefore, at least for this reason, Applicants respectfully assert that claim 89 is likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to claim 89.

In the Office Action, the Examiner rejected claims 90, 91 and 94 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Terry et al., Eldering et al., Rakib et al. and caporizzo.

Claims 90, 91 and 94 have been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications. Thus, the rejection of claims 90, 91 and 94 under 35 U.S.C. § 103(a) is moot.

In the Office Action, the Examiner rejected claims 92 and 95 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Terry et al., Eldering et al., Rakib et al. and caporizzo and further in view of Ahmed et al.

Claims 92 and 95 have been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications. Thus, the rejection of claims 92 and 95 under 35 U.S.C. § 103(a) is moot.

In the Office Action, the Examiner rejected claim 93 under 35 U.S.C. § 103(a), as being unpatentable over Williamson in view of Terry et al., Eldering et al., Rakib et al. and caporizzo and further in view of Preschutti and Ahmed et al.

Claim 93 has been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications. Thus, the rejection of claim 93 under 35 U.S.C. § 103(a) is moot.

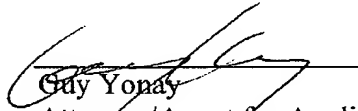
In view of the foregoing amendments and remarks, the pending claims are deemed to be allowable. Their favorable reconsideration and allowance is respectfully requested.

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Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Please charge any fees associated with this paper to deposit account No. 50-3355.

Respectfully submitted,

  
Gay Yonay  
Attorney/Agent for Applicant(s)  
Registration No. 52,388

Dated: December 20, 2006

**Pearl Cohen Zedek Latzer, LLP**  
1500 Broadway, 12th Floor  
New York, New York 10036  
Tel: (646) 878-0800  
Fax: (646) 878-0801